

measured respectively 5·8 and 6·25 inches in the flesh. The stomachs contained flies innumerable and small beetles.

152. PITTA LONGIPENNIS. Central-African Pitta.

*Pitta longipennis* Reichen. Vög. Afr. ii. p. 390.

Rh., P. I saw for a second on August 8th, in the dense bush of the Kurumadzi, a bird which I took to be a Pitta. It was running away from me and I had no time for a shot, but a local native who was with me informed me that he knew it well, that it was a bird "with a red breast and black head" and the owner of a note which I was constantly hearing, a ringing "plop-plop," reminding me of what I had read of the note of the Pitta. I have also heard this call in Maruma, on Mt. Umtereni, in the Mt. Pene forest-patch, and elsewhere.

[To be continued.]

II.—On the Ground-Dove of Porto Rico, with Notes on the other Species of *Chamæpelis*. By PERCY R. LOWE, B.A., M.B.O.U.

THE Ground-Doves of the genus *Chamæpelis* are admitted to be a difficult subject for study, and my only excuse for offering a few remarks on them lies in the fact that I have lately been able to make personal observations as to the colour of the bill in the species inhabiting the different islands of the Antillean Subregion. Although this is, in all probability, the principal character for the separation of the various forms, it is by no means the only one, as the variations in the plumage should not be neglected.

It will be seen by the nomenclature of the various species that most of them have been considered to be forms of the *Columba passerina* of Linnæus; but this being a composite species the name *passerina* should, I think, be dropped altogether.

Linnæus apparently never saw an actual specimen of these Ground-Doves, and, moreover, by adding, as synonyms of his *Columba passerina*, the "Ground-Dove of the Carolinas" of Catesby (Nat. Hist. Carol. i. p. 26, pl. 26) and the Ground-Dove of Sloane (Nat. Hist. of Jamaica, ii. p. 305), united the

Ground-Dove of Carolina with that of Jamaica. These two forms, however, are not, in my opinion, identical. Linnæus, therefore, having left us in doubt as to the locality to which his *C. passerina* belonged, it remains to consider what names the Jamaican and the North-American birds ought to bear.

For those who wish to retain the name *passerina* of Linnæus the birds of the latter locality would appear to be best qualified to bear it; but as the question is not free from doubt it would appear better, as I have suggested, to drop the name "*passerina*" altogether and call the Jamaican bird *C. jamaicensis*, while Mr. Chapman's name *terrestris* would still be assigned to the North-American form.

I have myself lately shot and skinned a series of sixty-nine of these Ground-Doves, and the following notes are chiefly founded on specimens in my collection. For much kind help at the British Museum I once more have to thank Dr. Bowdler Sharpe and Mr. Charles Chubb.

I begin by characterizing a new form as

*CHAMPELIA PORTORICENSIS*, sp. nov.

Nine males and three females from Guanica, Puerto Rico (Feb. 1907).

The bills of this form *in the perfectly fresh state* have the base crimson and the tip varying from brownish black to black. The crimson colour occupies at least *two-thirds* of the hinder end of the bill, running abruptly up to the black tip. In this respect it differs markedly from the Cuban form *C. p. aflavida*, where we have only a faint wash of dull crimson at the extreme base, the rest of the bill being blackish. The iris varies from hazel to light stone-yellow, according to sex and age. There is a narrow edging of stone-yellow along the edges of the upper and lower lids. The wings of nine males average 80·9 mm., those of three females 79·5 mm.

In the Bahaman form (*C. bahamensis*) the bill was described by Mr. Maynard as being "constantly and wholly black," and this is one of the characters on which he established the species.

As the colour of the bill is the principal feature in the separation of the species of *Chamæpelis*, it is evident that the Porto-Rican bird must be distinct from that of the Bahamas, since the latter has no crimson at the base of the bill, and for the reasons given above the Cuban form must also be held distinct from that of Porto Rico. So far as I am aware, there is only one other form which possibly has the base of the bill crimson—*C. pallescens* from Mexico, and this is a pale member of the genus.

As regards the rest of the plumage, every Porto-Rican bird differs from the Cuban, Bahaman, and Mexican forms in being much darker brown above and of a distinctly darker and richer vinaceous tint below. The pink colour of the sides of the neck and upper wing-coverts in birds from Porto Rico is also distinctly duller and more vinaceous than in Cuban or Bahaman specimens, and this is especially noticeable in the frontal zone of pink. This darker and richer colour of both upper and under surfaces is as noticeable in the females as in the males. I have purposely compared my birds with the three forms referred to, and not with specimens from Jamaica or North America, as the latter have invariably a bright orange or yellow bill and are thus obviously distinct.

It would appear indeed as if one could roughly recognise three main forms in this genus, viz., yellow-billed, crimson-billed, and black-billed, and from notes taken on the spot I have been much struck with the fact that these colours are remarkably constant in the various localities. Herein I differ entirely from Mr. Nicoll, who states that "the coloration of the soft parts is not constant in any one island" (*cf.* 'Ibis,' 1904, p. 572). He likewise considers that Floridan specimens are inseparable from those of the West Indies.

My experience is that adult males from Florida (*C. terrestris*) have the base of the bill *invariably* bright or deep orange or orange-yellow, and that those from Porto Rico have it *invariably* crimson, while those from Bermuda have the bill *invariably* and wholly blackish brown or black, as is probably the case in the Bahaman bird. Surely the Ground-Doves

from these different localities cannot be considered identical, even if these were their only points of difference.

At the present time, besides the species of *Chamæpelia* above described, nine others have been recognised. With the majority of these I am personally acquainted, having seen and shot them in the different localities. I offer the following remarks upon them.

#### CHAMÆPELIA TERRESTRIS.

*Columba passerina* Linn. Syst. Nat. i. p. 285 (1766), ex Catesby, Nat. Hist. Carolinas, vol. i. p. 26.

*C. p. terrestris* Chapman, Bull. Am. Mus. Nat. Hist. vol. iv. p. 292 (1892).

Seven males and two females from Charlotte Harbour, Florida (April, May, 1907).

The *adult males* have the base of the bill bright orange, the nasal prominences clear yellow, and the tip of the bill horn-coloured. Younger birds have the base of the bill bright yellow.

*Adult females* have the base of the bill dull reddish orange or in some cases yellow (these are probably younger birds).

In describing this form Mr. Chapman states that "the basal half or two-thirds of the bill is *coral-red*, the tip black or blackish. (In dried specimens the red becomes orange or yellow, and it is then indistinguishable from Jamaican birds) (*C. passerina*)."  
My notes were made immediately the birds were shot, and, as may be seen, do not agree with those of Mr. Chapman. I have not seen a "coral-red bill" in the fresh state.

As regards the plumage, this is a very easily distinguishable bird. In the male both the upper and under parts are deeper and richer in colour than in any other form. The females are mouse-coloured beneath, contrasting in a striking manner with the females of every other form.

The wings of seven males in my collection average 87.5 mm., those of two females measure 86 and 88 mm. respectively, from which it will be seen that this is probably the largest form of the genus.

## CHAMÆPELIA JAMAICENSIS.

*Columbigallina jamaicensis* Maynard, App. Birds West Indies, 1899, p. 34.

*Columba passerina* Linn. Syst. Nat. i. p. 285 (1766), ex Catesby, Nat. Hist. Carolinas, vol. i. p. 26.

I have specimens of this form in my collection from Jamaica, the Cayman Islands, St Thomas, St. Kitts, Dominica, and Grenada.

The basal two-thirds of the bill of the adult male varies from bright orange to yellow according to age, that of the female is yellow. The tip of the bill varies from brownish black to black; the tarsi and feet are pale flesh-coloured.

I cannot agree to the correctness of Mr. Maynard's description of the Jamaican bird, which he compares with *C. bahamensis*, and states to be "lighter in shade." I have examined nine males and six females from Jamaica, and, on the contrary, find that in *both* sexes they are much darker above, and that the *males* are of a darker, richer, and more vinaceous tone below.

Without a much larger series of specimens from the other Lesser Antillean Islands and without careful notes taken of the soft parts in the fresh state it is impossible to be certain whether they belong to a different form from the Jamaica bird. The specimens which I have collected myself, as well as those in the National Collection, are apparently identical with the Jamaican form, and I can see no reason for separating them; this especially applies to the specimens from the Cayman Islands.

From a geographical point of view the St. Thomas Ground-Dove ought to be identical with that of Porto Rico, for the two islands rest on the same isolated submarine plateau, are connected and surrounded by the same shallow soundings, and so are probably, together with other and smaller neighbours, the isolated remnants of one large island.

## CHAMÆPELIA PALLESCENS.

*Chamæpelis passerina* var. *pallescens* Baird, Proc. Phil. Acad. 1859, p. 305.

I have unfortunately never made notes of the soft parts of this form in the fresh state. Mr. Ridgway (Manual N. Am. Birds, p. 591) says that the wings are on an average rather longer and the bill much smaller or more slender than in *C. passerina*. The bill is "often (always in fully adult males?) red basally."

The specimens of this form that I have seen are very pale in plumage, so conspicuously so that they can easily be picked out from a collection of other forms.

This form inhabits the South-western United States (Texas to Arizona and Lower California) and south through Mexico (on both coasts) to Central America (*Ridgway*). I have only met with it near Tampico in Eastern Mexico.

CHAMÆPELIA SOCORROENSIS.

*Columbigallina passerina socorroensis* Ridgw. Man. N. Am. Birds, p. 586 (1887).

*Chamapelia socorroensis* Salv. & Godm. Biol. Centr.-Amer., Aves, iii. p. 252 (1902).

I have never met with this form from the Socorro Islands.

CHAMÆPELIA BAHAMENSIS.

*Columbigallina passerina bahamensis* Mayn. Amer. Exch. & Mart, vol. iii. no. 4, p. 69 (1887).

Mr. Maynard described the Ground-Dove of the Bahamas as "similar to the Common Ground-Dove, but with the bill constantly and wholly black, and much smaller and paler."

I have examined the series of this species in the British Museum, which includes Mr. Maynard's types, and also have to thank Mr. Bonhote for allowing me to compare four specimens which he collected in the Bahamas. The bills of all the specimens appear to be wholly black, but whether there was, or was not, originally a basal cast of crimson (as in *C. aflavida*) it is difficult to say: Mr. Bonhote's specimens, which were obtained in 1904, shew no traces of it.

In both sexes the upper parts are of a pale ashy brown, while the pink coloration beneath in the males is also very pale.

## CHAMÆPELIA BERMUDIANA.

*Columbigallina passerina bermudiana* Bangs & Bradlee, Auk, vol. xviii. p. 250.

Six males from the Bermudas.

Irides light hazel, with an inner ring of yellowish; eyelids edged with a narrow ring of light yellow. The bills of these birds are darker than in any other form that I have yet met with, and, even when examined in the perfectly fresh state, appear to be almost uniformly black. My experience is that, when examined very carefully on the spot, the nasal prominences are seen to be of a dull horn-colour, and the tip of the bill of a dark horn-colour or black; while the edges of the mandibles have a very narrow line of faint crimson, all the rest of the bill being black. This applies to both the adult male and the female.

In the original description the bill is described as "wholly brownish black without a trace of yellowish or orange." The irides of young birds are greyish green. The freshly moulted young male in breeding-plumage has the upper parts of a beautiful pale smoke-blue colour, very striking as the bird takes to the wing and flies away. The under parts are of a very pale uniform tint of pink. Altogether this form is the palest that I have seen, and freshly moulted specimens of it are easily recognisable. Later on the plumage becomes soiled with a ferruginous dye from contact with the peculiar soil of the Bermudas, where it is very common.

This bird has the habit of "shamming hurt" when disturbed from its nest. I have once or twice seen it fall from it like a stone and flutter along the ground in the most artful manner.

## CHAMÆPELIA INSULARIS.

*Columbigallina passerina insularis* Ridgway, Pr. U.S. Nat. Mus. x. p. 574 (1887).

Two males and two females from the Cayman Islands.

Mr. Ridgway has described this bird as very similar to *C. bahamensis*, "but larger and with the basal half (or more) of the bill distinctly orange or yellowish."

Beyond the fact that the specimens which Dr. Bowdler

Sharpe and I obtained on Grand Cayman Island are slightly paler than those from Jamaica, I can see no appreciable differences, and I consider that *C. insularis* ought not to be separated from *C. jamaicensis*. It may be observed that Mr. Ridgway compares his yellow-billed bird with the black-billed Bahaman variety, instead of with the yellow-billed Jamaican form.

It may be worth pointing out that although the Cayman group of islands is geographically connected with the southwestern end of Cuba by a line of shallow soundings which indicate a previous connexion, yet the bills of the Ground-Doves in the one case are yellow (basally) and in the other crimson.

CHAMÆPELIA PERPALLIDA.

*Columbigallina passerina perpallida* Hartert, Ibis, 1893, p. 304.

In my male specimens the basal two-thirds of the bill vary from orange and orange-yellow to yellow (according to age), the tip being nearly black. Iris reddish. Tarsi and feet very pale flesh-coloured. Females have no orange at the base of the bill. This is a well-marked and constant form. It is uniformly paler both above and beneath than *C. jamaicensis* from Jamaica. The pale coloration is especially striking in a series of nine females that I have collected, in which the abdomen is creamy white. The wings of five males in my collection average 79 mm., and those of nine females 76 mm.

Dr. Hartert described this form from the Islands of Curaçoa, Bonaire, and Aruba, and I have lately found it in Blanquilla, the Los Hermanos group of islands, and Margarita. It is probable indeed that it is resident in all the islands along the northern coast of Venezuela and Colombia, as well as in the arid coast-districts of this littoral.

CHAMÆPELIA AXANTHA.

*Columbigallina passerina aflarida* Palmer & Riley, Proc. Biol. Soc. Wash. vol. xiii.-xv., March 5th, 1902.

Four males from Havana, and three females from Matanzas, Cuba.



The bills of my specimens were brownish black, becoming quite black at the tip, and having the extreme base washed with crimson. Along the edges of the mandibles is a narrow line of crimson, lighter than that at the base. As Mr. Chapman remarks, "the general appearance of the bill is black." I have never seen a trace of yellow or orange in either male or female. The wings of my four males average 85·8 mm., and those of the females 84·5 mm.

Cuban specimens are slightly larger than those from the Bahamas, which have not as yet been described as having any crimson wash at the base of the bill, otherwise there can be little difference between them. I notice, however, that in the Cuban specimens in the British Museum and in my own collection the birds are slightly duller above and beneath than those from the Bahamas.

For the name *aflavida*, which is a compound of Greek and Latin, I propose to substitute that of *axantha*.

CHAMÆPELIA EXIGUA.

*Columbigallina passerina exigua* Riley, Proc. U.S. Nat. Mus. xxix. p. 171 (1905).

*Hab.* Mona Island, Puerto Rico, W.I.

I have never seen specimens of *Chamæpelia* from this island, which is thirty-eight miles from the mainland (Porto Rico)—lying between it and S. Domingo. Mr. Riley describes the colour of the bill as wholly black, and compares the form with *C. bahamensis* and *C. perpallida*. It differs, he says, from the Bahaman bird in being smaller and much paler above and below, and from *C. p. perpallida* "in its paler coloration and wholly black bill." The female is said to be similar to that of *C. bahamensis*, but smaller.

It may be remarked that Mr. Riley compares his bird with that of the Bahamas, which belongs to the black-billed race, and also with the Venezuelan form (*C. perpallida*), which belongs to the yellow-billed group. Since his bird has the bill wholly black it would have been better to have compared it with the Bermudan (black-billed) as well as with the Bahaman form.